510(k) Summary

This summary of 510(k) safety and effectiveness information is submitted in accordance with the requirements of the Safe Medical Devices Act of 1990 and 21 C.F.R. §807.92.

1. The submitter of this premarket notification is:

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This summary was prepared on March 01, 2011.

2. The names of the devices are the Philips MP2, X2, MP5, MP5T, MP5SC, MP20, MP30, MP40, MP50, MP60, MP70, MP80, MP90, MX600, MX700 and MX800 Intellivue patient monitors Classification names are as follows:

Device Panel	Classification	ProCode	Description -		
Cardiovascular	§870.1025, II	DSI	Detector and alarm, arrhythmia		
Devices	§870.1025, II	MILD	Monitor, ST Segment with Alarm		
	§870.1025, II	МНХ	Monitor, Physiological, Patient (with arrhythmia detection or alarms)		
	§870.1100, II-	DSJ	Alarm, Blood Pressure		
	§870.1110, II	DSK	Computer, Blood Pressure		
	§870.1130, II	DXN	System, Measurement, Blood- Pressure, Non-Invasive		
	§870.1435, II	DXG	Computer, Diagnostic, Pre- Programmed, Single-Function		
	§870.1915, II	KRB	Probe, Thermodilution		
	\$870.2060, II	DRQ	Amplifier and Signal Conditioner, Transducer Signal		
	§870.2300, II	DRT	Monitor, Cardiac (incl. Cardiotachometer & Rate Alarm)		
	\$870.2340, II	DPS	Electrocardiograph		
	§870.2340, II	MLC	Monitor, ST Segment		
	§870.2350, II	DRW	Electrocardiograph, Lead Switching Adapter		
	§870.2370, II	KRC	Tester, Electrode, Surface, Blectrocardiograph		
	§870.2600, I	DRJ	System, Signal Isolation		
_	\$870.2700, II	DQA	Oximeter		
	§870.2770, II	DSB	Plethysmograph, Impedance		
	§870.2800, II	DSH	Recorder, Magnetic tape, Medical		
	§870.2810, I	DSF	Recorder, Paper Chart		
	§870.2850, II	DRS	Extravascular Blood Pressure Transducer		
	§870.2900, I	DSA	Cable, Transducer and Electrode, incl. Patient Connector		

Device Panel	Classification	ProCode	Description **		
	_	MSX	System, Network and Communication, Physiological Monitors		
,	§870.2910, II	DRG	Transmitters and Receivers, Physiological Signal, Radiofrequency		
Anesthesiology Devices	§868.1400, II	CCK	Analyzer, Gas, Carbon Dioxide, Gaseous-Phase		
	§868.1500, II	СВО	Analyzer, Gas, Enflurane, Gaseous-Phase (Anesthetic Concentration)		
	§868.1500, II	ино	Analyzer, Gas, Desflurane, Gaseous-Phase (Anesthetic Concentration)		
	§868.1500, II	NHP	Analyzer, Gas, Sevoflurane, Gaseous-Phase (Anesthetic Concentration)		
	\$868.1500, II	NHQ	Analyzer, Gas, Isoflurane, Gaseous-Phase (Anesthetic Concentration)		
	\$868.1620, II	CBS.	Analyzer, Gas, Halothane, Gaseous-Phase (Anesthetic Concentration)		
	§868.1700, II	CBR	Analyzer, Gas, Nitrous Oxide, Gaseous-Phase (Anesthetic Concentration)		
	§868.1720, II	CCL	Analyzer, Gas, Oxygen, Gaseous- Phase		
n, distance	§868.1880, II	BZC	Data calculator Pulmonary- function		
	§868.2375, II	BZQ	Monitor, Breathing Frequency		
	§868.2480, II	LKD	Monitor, Carbon Dioxide, Cutaneous		
	§868.2500, II	Kľrk	Monitor, Oxygen, Cutaneous, for Infant not under Gas Anesthesia		
General Hospital and Personal Use Devices	§880.2910, II	FLL	Thermometer, Electronic, Clinical		
Neurological	§882.1400, II	GWR	Electroencephalograph		
Devices	§882.1420, I	GWS	Analyzer, Spectrum, Electroencephalogram Signal		

- 3. The modified devices are substantially equivalent to previously cleared Philips IntelliVue patient monitors marketed pursuant to K102562, K101449, K100939, K093268, K091927, K083517, K082633, K081793, K072070, K071426, K063725, K063315, K062283, K062392, K061610, K061052, K060541, K060221, K053522, K052801, K051106, K050762, K050141, K042845, K041235, K040304, K033513, K033444, K032858, K031481, K030038, K023871, and K021778
- 4. The Philips IntelliVue Patient Monitor family comprises the multi-parameter patient monitor models: MP2, X2, MP5, MP5T, MP5SC, MP20, MP30, MP40, MP50, MP60, MP70, MP80, MP90, MX600, MX700 and MX800 IntelliVue Patient Monitors that consist of display units including built-in or separate flat panel

displays and central processing units (CPU) and physiological measurement modules. All monitors share the same system architecture and exactly the same software is executed on each monitor.

The Intellivue Patient Monitors measure multiple physiological parameters such as surface ECG, invasive and non-invasive pressure, etc., generate alarms, record physiological signals, store derived data, and communicate derived data and alarms to central stations via the Intellivue Clinical Network.

The subject modification is the introduction of the models MX600 and MX700 together with a new model of the flexible module server. Additionally the software revision H.04 is made available for the entire Intellivue Patient Monitors family.

- 5. The modified devices have the same intended use as the legally marketed predicate devices. The Philips MP2, X2, MP5, MP5T, MP5SC, MP20, MP30, MP40, MP50, MP60, MP70, MP80, MP90, MX600, MX700 and MX800 Intellivue patient monitors are intended for monitoring and recording of and to generate alarms for, multiple physiological parameters of adults, pediatrics and neonates in hospital environments. The MP2, X2, MP5, MP5T, MP5SC, MP20, MP30, MP40, and MP50 are additionally intended for use in transport situations within hospital environments. The MP2, X2 and MP5 are also intended for use during patient transport outside of a hospital environment. The monitors are not intended for home use. They are intended for use by health care professionals.
- 6. The modified devices have the same technological characteristics as the legally marketed predicate device.
- 7. Verification, validation, and testing activities establish the performance, functionality, and reliability characteristics of the modified devices with respect to the predicate. Testing involved system level and regression tests as well as testing from the hazard analysis. Pass/Fail criteria were based on the specifications cleared for the predicate devices and test results showed substantial equivalence. The results demonstrate that the Philips IntelliVue patient monitors meet all reliability requirements and performance claims.



Food and Drug Administration 10903 New Hampshire Avenue Document Control Room –WO66-G609 Silver Spring, MD 20993-0002

MAR 3 1 2011

Philips Medical Systems. c/o Mr. Herbert van Dyk Sr. Regulatory Affairs Engineer Patient Monitoring Philips Medizin Systeme Boeblingen GmbH Hewlett-Packard-Str. 2 D-71034 Boeblingen, Germany

Re: K110622

Trade/Device Name: Philips MX600 and MX700 and Software Revision H.04

Regulation Number: 21 CFR 870.1025

Regulation Name: Patient Physiological Monitor (with arrhythmia detection or alarms)

Regulatory Class: Class II (two)

Product Codes: MHX Dated: March 1, 2011 Received: March 3, 2011

Dear Mr. van Dyk:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act

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or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours

Lar

Bram D. Zuckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number (if known): K110622

Device Name: Philips MP2, X2, MP5, MP5T, MP5SC, MP20, MP30,

MP40, MP50, MP60, MP70, MP80, MP90, MX600, MX700 and MX800 Intellivue patient monitors, software revision H.04.

Indications for Use: Indicated for use by health care professionals whenever there is a need for monitoring the physiological parameters of patients. Intended for monitoring and recording of and to generate alarms for multiple physiological parameters of adults, pediatrics and neonates in hospital environments. The MP2, MP5, MP5T, MP5SC, X2, MP20, MP30, MP40, and MP50 are additionally intended for use in transport situations within hospital environments. The MP2, X2 and MP5 are also intended for use during patient transport outside of a hospital environment.

Prescription Use (Part 21 CFR 801 Subpart D)	Yes	AND/OR	Over-The-Counter Use (21 CFR 807 Subpart C)	No

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF NEEDED)

Concurrence of CDRH: Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Cardiovascular Devices

510(k) Number <u>KII0622</u>